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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/265,601 03/10/99 CHOI

W 03364.P010

EXAMINER

IM22/0511

BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD
SEVENTH FLOOR
LOS ANGELES CA 90025

DOVE, T

ART UNIT

PAPER NUMBER

1745

DATE MAILED:

05/11/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/265,601

Applicant(s)
Choi et al.

Examiner
Tracy Dove

Art Unit
1745



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8 Mar 2001
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other:

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DETAILED ACTION

This Office Action is in response to the communication filed on 3/8/01. Applicant's arguments have been considered, but are not persuasive. Claims 1-8 remain rejected in view of the prior art of record. This Action is made **FINAL**.

Specification

The objection to the specification has been withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1 and 3 contain the limitation that the carbon material has an intensity ratio of less than 0.2. However, the specification does not describe how the intensity ratio was obtained. Intensity ratios may be measured using different methods and it is not clear how the intensity ratio of the present invention was obtained. The specification does not indicate a wavelength.

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitation of an intensity ratio less than 0.2 in claims 1 and 3 is relative and renders the claims indefinite. The limitation of an intensity ratio less than 0.2 is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. See argument above.

To the best that the claims are understood in view of the 35 U.S.C. 112 rejections above, please note the following prior art rejections.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who

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has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sonobe et al., US 5,721,071 "Sonobe".

See Office Action of 6/21/00 for the reasons for rejection.

Claims 1-4 are rejected under 35 U.S.C. 102(e)/103(a) as being anticipated by and alternatively unpatentable over Kubota et al., US 6,139,990 "Kubota".

See rejection of 12/6/00 for the reasons for rejection.

Claims 1-4 are rejected under 35 U.S.C. 102(e)/103(a) as being anticipated by and alternatively unpatentable over Nagamine et al., US 5,932,373 "Nagamine".

See rejection of 12/6/00 for the reasons for rejection.

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Claims 1-8 are rejected under 35 U.S.C. 102(e)/103(a) as being anticipated by and alternatively unpatentable over Hayashi et al., US 5,906,900 "Hayashi".

See rejection of 12/6/00 for the reasons for rejection.

Response to Arguments

35 U.S.C. 112, first paragraph

Applicant argues the intensity ratio of the X-ray diffraction peaks does not depend on the method of measurement of the wavelength because the intensity *ratio* is calculated by dividing the intensity of the (110) plane by that of the (002) plane so that the factor effect is canceled out in both the numerator and the denominator.

However, this assertion by Applicant is incorrect. Cullity, Element of X-ray Diffraction, teaches intensities depend on wavelength and this dependence should be kept in mind if an observed pattern is compared with known patterns made with a different wavelength. No wavelength is disclosed in the instant specification. Furthermore, the pattern may be recorded with a Debye-Scherrer camera, Guinier camera, or a diffractometer. Here, again, line intensities depend on the apparatus. In particular, absorption effects cause high-angle lines on a Debye-Scherrer pattern to be stronger, relative to low-angle lines, than on a diffractometer recording. See page 401, section heading "Procedure".

Thus Applicant's argument is not convincing.

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Sonobe

Applicant's arguments with respect to Sonobe have been fully considered but they are not persuasive. Applicant argues Sonobe neither teaches nor suggests dissolving a coal tar pitch or a petroleum pitch in an organic solvent to remove insoluble components from the pitch.

Sonobe teaches the addition of quinoline to petroleum pitch or coal pitch in col. 2, lin 17-30. In col. 2, lines 17-20 Sonobe teaches "a carbonized mesophase bead material...*obtained* from pitch" and in line 31-32 "*recovering* the mesophase beads". Therefore the reference teaches and suggests that impurities are removed from the pitch.

Kubota

Applicant argues that Kubota does not teach or suggest the manner of preparing the negative active material of claims 1 and 3. However, Applicant has not addressed the 35 U.S.C. 103(a) rejection. Regarding the process limitations of claims 1 and 3, the invention as a whole would have been obvious because irrespective of how the negative active material is made, the products are the same. Thus, whether the carbon material is formed by the method of the instant invention or any other method of manufacturing the negative active material is used, the active material, as an end result, is the same. Furthermore, the courts have held that when similar products are produced, the product-by-process limitations are obvious. In re Brown 173 USPQ 685, In re Fessman 180 USPQ 324. In the absence of unexpected results or evidence that the product of claims 1 and 3 is materially different than that of the prior art, the method limitations of claims 1 and 3 are obvious.

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Nagamine

Applicant argues that Nagamine does not teach or suggest the manner of preparing the negative active material of claims 1 and 3. However, Applicant has not addressed the 35 U.S.C. 103(a) rejection. Regarding the process limitations of claims 1 and 3, the invention as a whole would have been obvious because irrespective of how the negative active material is made, the products are the same. Thus, whether the carbon material is formed by the method of the instant invention or any other method of manufacturing the negative active material is used, the active material, as an end result, is the same. Furthermore, the courts have held that when similar products are produced, the product-by-process limitations are obvious. In re Brown 173 USPQ 685, In re Fessman 180 USPQ 324. In the absence of unexpected results or evidence that the product of claims 1 and 3 is materially different than that of the prior art, the method limitations of claims 1 and 3 are obvious.

Regarding claim 5, a method claim, Applicant argues that Nagamine does not teach or suggest dissolving a coal tar pitch or a petroleum pitch in an organic solvent to remove insoluble components therefrom. Rather, Nagamine suggests quinoline may be a starting material. This argument is convincing and the rejection of claims 5-8 as being obvious if view of Nagamine has been withdrawn.

Hayashi

Applicant argues that Hayashi does not teach or suggest the manner of preparing the negative active material of claims 1 and 3. However, Applicant has not addressed the 35 U.S.C.

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103(a) rejection. Regarding the process limitations of claims 1 and 3, the invention as a whole would have been obvious because irrespective of how the negative active material is made, the products are the same. Thus, whether the carbon material is formed by the method of the instant invention or any other method of manufacturing the negative active material is used, the active material, as an end result, is the same. Furthermore, the courts have held that when similar products are produced, the product-by-process limitations are obvious. In re Brown 173 USPQ 685, In re Fessman 180 USPQ 324. In the absence of unexpected results or evidence that the product of claims 1 and 3 is materially different than that of the prior art, the method limitations of claims 1 and 3 are obvious.

Regarding claim 5, a method claim, Applicant argues that Hayashi does not teach or suggest dissolving a coal tar pitch or a petroleum pitch in an organic solvent to remove insoluble components therefrom. Rather, Hayashi uses an organic substance to substitute the surfaces and fine pores of the carbonaceous particles. However, in col. 8, lines 20-23 Hayashi teaches “removing volatile components from the carbonaceous material-organic substance-mixed slurry”. The removal of volatile components taught by Hayashi renders the claimed invention obvious. Furthermore, one of skill would have known the coal tar pitch and petroleum pitch inherently contain impurities that require removal.

Conclusion


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THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracy Dove whose telephone number is (703) 308-8821. The Examiner may normally be reached *Monday-Thursday from 8:00 AM - 6:30 PM*. My supervisor is Gabrielle Brouillette, who can be reached at (703) 308-0756. The Art Unit receptionist can be reached at (703) 308-0661 and the official fax number is (703) 305-3599.

May 9, 2001


GABRIELLE BROUILLETTE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700